

Statement of Basis
Legacy Cabinets, Inc.
(Wood Working & Surface Coating Processes)

Major Source of Volatile Organic Compound Emissions and
Hazardous Air Pollutant Emissions

Introduction

On July 21, 2014, Legacy Cabinets, Inc. submitted a renewal Title V major source permit application for the manufacture and surface coating of wooden kitchen cabinets (SIC # 2434). Legacy Cabinets, Inc. is located in Eastaboga, Alabama. Facility operations consist of woodworking, surface coating, and assembly. This renewal will also incorporate Air Permit X005 (Surface Coating Line No. 5).

Modification Description

LINE NO.	EXISTING TITLE V LIMIT (TPY)	EXISTING AIR PERMIT LIMIT (TPY)*
1	249 W/ NO. 2,3	
2	249 W/ NO. 1,3	
3	249 W/ NO. 1,2	
4	237	
5	0	39.0

*Which is being incorporated into the Title V renewal.

Process Description

Following the woodworking operations, the wood is then conveyed to the surface coating lines that consist of several spray booths and natural gas-fired ovens. The typical coating line consists of a stain booth, drying tunnel, sealer booth, drying oven, topcoat booth, and drying oven.

Volatile organic compounds (VOCs) from the organic solvents in the paint, paint thinners, and cleanup solvents, are regulated criteria air contaminants emitted to the atmosphere by the surface coating of the wooden kitchen cabinets. The surface coating operations are also a source of hazardous air pollutants (HAPs), as listed in Appendix G of the ADEM Air Regulations.

Regulations

Potential emissions of VOCs exceeds the threshold of 100 tons per year. Therefore, Legacy Cabinets is considered a major source for Title V. Legacy Cabinets has requested VOC emission limits of a 249 TPY limit on Line Nos. 1, 2, and 3, a limit of a 237 TPY limit on Line No. 4, and a limit of 39 TPY on Line No. 5 for any consecutive rolling 12-month period in order to avoid PSD requirements. Therefore, Legacy Cabinets is considered a major source for PSD for future additions.

The potential HAP emissions from the coating operation are also emitted in such quantities as to exceed the Title III and Title V major source thresholds. The HAP emission thresholds for a major source are 10 tons for a single HAP and 25 tons for a combination of any HAPs.

The coating lines are all subject to the NESHAP for the Manufacture of Wood Furniture, Subpart (JJ). This regulation requires Legacy Cabinets to limit emissions of certain HAPs in their coatings and to implement certain work practices and training for operators.

No other criteria pollutants are emitted in sufficient quantities, actually or potentially, to exceed the major source threshold of 100 tons per year.

The following is a list of all of the facility's sources (individual emissions units) which will be part of the facility's Title V Major Source Operating Permit:

Permit Unit No.	Description of Unit
001	Surface Coating Line No. 1
002	Surface Coating Line No. 2
003	Miscellaneous Coating Booth(s) Line No. 3
004	Surface Coating Line No. 4
005	Surface Coating Line No. 5
010	Woodworking Operations with Cyclone(s)/Baghouse(s)
020	3 MMBTU/HR Natural Gas Fired Boiler

Monitoring of Emissions

Legacy Cabinets will maintain records of monthly coating usage and coating analysis for each line to show compliance with both their PSD limits and their Wood Furniture MACT requirements. These will be submitted quarterly.

The woodworking operations are subject to opacity and particulate standards. The particulate control devices on the woodworking operations are connected in series. Weekly visible observations of the baghouse should be sufficient monitoring considering the efficiency of the baghouse and past lack of opacity problems. Records of these observations shall be made.

Legacy Cabinets has an approximately 2 MMBtu/hr, natural gas-fired drying oven on the Coating Line No. 2 and another on Coating Line No. 4. No periodic monitoring for any pollutant will be required on these ovens due to the inherently clean nature of the fuel and the small size of the ovens.

Legacy Cabinets has a 2.8 and a 2.0 MMBtu/hr, natural gas-fired boiler. No periodic monitoring for any emissions will be required on these boilers due to the inherently clean nature of the fuel and the small size of the boilers.

This is the monitoring in the existing Title V Permit. This monitoring has been shown to be sufficient in the past and; therefore, no further changes to the

monitoring is needed. CAM is not applicable because potential uncontrolled emissions of criteria pollutants do not exceed 100 tons per year on any one unit with control device(s).

Recommendations

I recommend that the attached permit be issued to Legacy Cabinets, Inc. pending the public comment period.

Kevin Fulmer
Chemical Branch
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